

Reflex Sensors

with Background Suppression

HK12PA

Part Number



- Electronic Background Suppression
- Miniature Design
- Red Light
- Switching Distance Adjuster



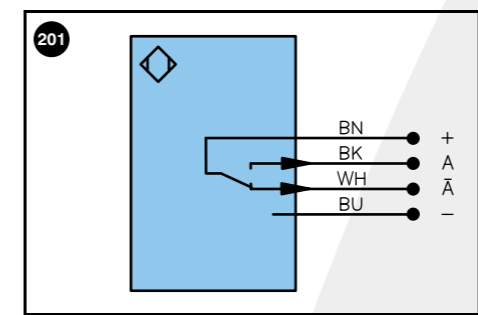
Technical Data

Optical Data	
Range	120 mm
Adjustable Range	18...120 mm
Switching Hysteresis	< 15 %
Light Source	Red Light
Service Life (T = +25°C)	100000 h
max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24V)	< 30 mA
Switching Frequency	700 Hz
Response Time	714 μs
Temperature Drift	< 5 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2.5 V
PNP Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Mechanical Data	
Adjustment	Potentiometer
Housing	Plastic
Full Encapsulation	yes
Protection Mode	IP 67
Connection	Prewired
Cabel Length	2 m
Protective Insulation, Rated Voltage	50 V

	Prewired Version
Part Number	HK12PA
PNP NO/NC antivalent	●
Connection Diagram No.	201
Control Panel No.	K 4

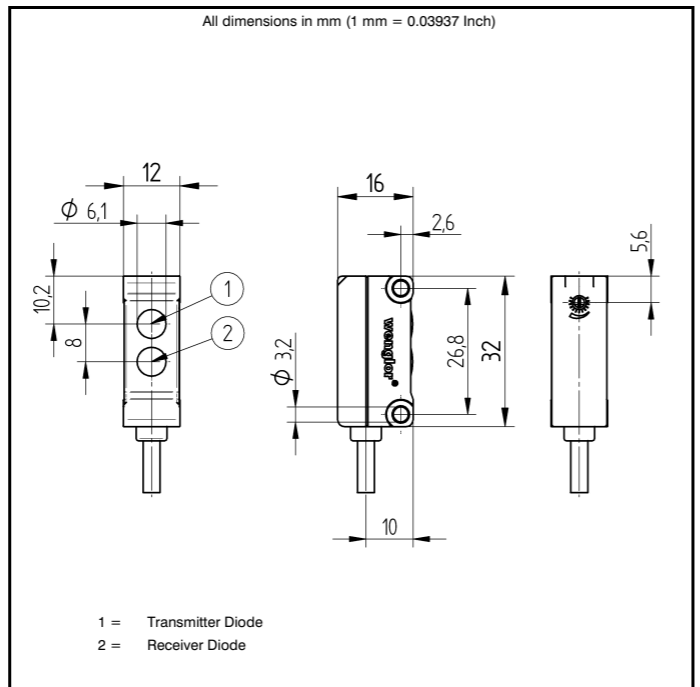
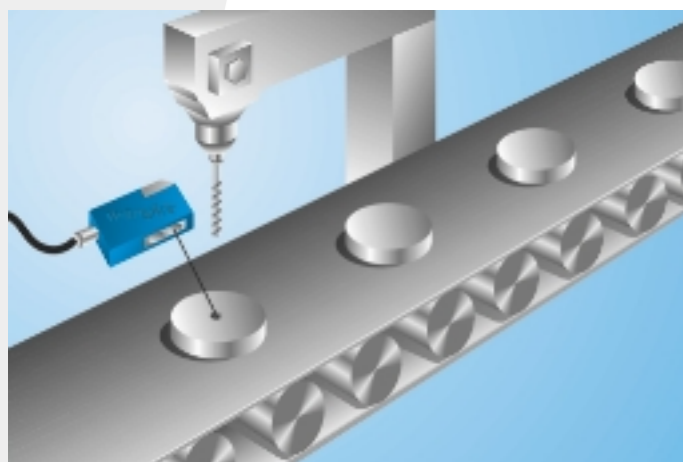
Table 1

Range	30 mm	75 mm	120 mm
Light Spot Diameter	4 mm	6 mm	10 mm



Legend		Wire colors according to DIN IEC 757
+	Power supply "+"	BK black
-	Power supply "0V"	BN brown
-	Power supply (AC Voltage)	RD red
A	Switching output (1,2,3...) / NO	OG orange
Ā	Switching output (1,2,3...) / NC	YE yellow
V	Contamination / Error output (NO)	GN green
Ṽ	Contamination / Error output (NC)	BU blue
E	Input (analog or digital)	a Valve control output "+"
T	Teach input	b Valve control output "0V"
Z	Time delay (activation)	VT violet
S	Shielding	SY Synchronization
Rd	RS-232 receive path	E+ Receiver-Line
RdY	Ready send path	S+ Emitter-Line
GND	Ground	= Grounding
CL	Clock	S-R Switching Distance Reduction
		USB+ USB data +
		USB- USB data -
		Ba Interfaces-Bus A(+)/B(-)
		La Emitted light disengageable
		PK pink
		WH white
		GYE green yellow

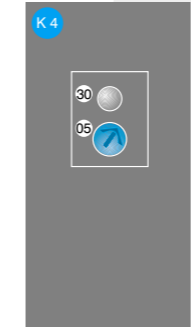
These sensors are particularly well suited for recognizing objects in front of any type of background. The color, shape and surface characteristics of the object have practically no influence on sensor switching performance.



Accessories

Mounting Bracket WK

Ctrl. Panel



05 = Switching Distance Adjuster
30 = Switching Status/Contamination Warning

Switching Distance Deviation

Typical characteristic curve based on Kodak white, 90%

